ABSTRACT

The present invention provides an α -keto acid reductase isolated from Leuconostoc mesenteroides subsp. dextranicum, and a DNA encoding the reductase. The enzyme and homologs thereof reduce α -keto acids under the presence of NADH to produce optically active α -hydroxy acids. The α -hydroxy acids of the present invention include optically active mandelic acid derivatives of formula II. The optically active mandelic acid derivatives obtained by the present invention are useful as intermediates in synthesizing pharmaceuticals and pesticides.

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formula (II)